

**IWA International Water Association, CAP-NET,
National Water Resource Institute, Kaduna, Nigeria**

WASH Human Resource Capacity Gap Assessment Study - Ghana

Summary Report

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Background of Study

In the water and sanitation sector, the human resource requirement to meet the MDG targets has not received the needed attention and therefore there is a need to assess the constraints to meet the MDGs and to sustain services in relation to the numbers of staff, qualifications and their practical experience. With the 2010 water coverage of 86%, Ghana has made progress in reducing the proportion of the population without access to improved sanitation. The water MDG target will be achieved by 2015 if the current trends continue. With the 2010 sanitation coverage of 14%, Ghana has not made progress in reducing the proportion of the population without access to improved sanitation. The sanitation MDG target may not be achieved by 2015 if the current trends continue. In response to the need for HR capacity assessment, the International Water Association (IWA) in collaboration with Cap-Net is supporting the Water and Sanitation Human Resource Capacity Gap Assessment in Ghana. The Water and Environment Centre of the Department of Civil Engineering of the Kwame Nkrumah University of Science and Technology was given the opportunity to undertake this assignment. This document is a draft report of the assignment.

The objectives of the study were to:

- a) Assess the current and future demand for human resources, competences in water and sanitation in Ghana to meet MDG goals and universal access.
- b) Review the competences (skills and knowledge) being made available through existing project specific training, technical colleges and universities and colleges, NGOs and through any other means.
- c) Propose capacity development recommendations (or strategy) to meet demand for qualified and competent personnel in the short and medium term, and propose ideas to meet the existing short term supply and 'human resource gap.

Methodology

A survey and case study methods were used to collect data from WASH sector organisations and training institutions. The data from the public sector organisations cover the whole nation. In the northern region of Ghana, two NGOs and one consulting firm were selected. Four NGOs and two consulting firms selected in Accra. Three out of six public universities were selected for case study on the supply of HR for the WASH sector. The data collection method involved the following:

- Organizational capacity survey for determining existing HR capacity and identify competencies (Number of organizations, number of employees per category of organisation, category of competence and qualifications, sector drivers, incentives and retention).
- Institutions survey to estimate current and future HR supply, through survey of universities and colleges' courses available and interviews with academic staff (Current and future HR supply, categories of qualification and skills, incentives for supply).
- Data analysis sought to assess shortage and capacity gaps and to develop recommendations for a Human Resources Development (HRD) Plan. Capacity is defined as the number of staff available to deliver water supply and sanitation services but capacity cap is defined as when people lack the necessary skills set to perform their job in an effective manner.

WASH Sector Context

The WASH sector is organised into three categories of service: urban water, urban sanitation, and rural water and sanitation. The urban water systems are operated by the public utility company called Ghana Urban Water Company Limited (GUWL). The water asset holder is a public company called Ghana Water Company Limited (GWCL). The GUWL and GWCL have the legal mandate to provide, distribute and conserve water for domestic, public and industrial purposes in urban centres with more than 50,000 people. GUWL operates a total of 86 systems in all the 10 regions of Ghana. The Metropolitan, Municipal and District Assemblies (MMDAs) have the legal mandate to provide sanitation services in the urban communities. There are also community and private operator managed sanitation facilities in the cities, large towns and small towns. A number of NGOs are involved in the provision of sanitation facilities for urban poor and peri-urban communities. Some MMDAs operate wastewater treatment plants for treating faecal sludge from septic tanks and other public dry toilets.

Existing HR Capacity and Competence in Water Supply

The public water utility company (Ghana Urban Water Company) has HR strength of 2911. There are 216 employees at post in Community Water and Sanitation Agency (CWSA). The estimated total number of private sector HRs shows at least 2343 who are involved in water and sanitation. This value might be more due to the number of private sector-owned water and sanitation facilities which are commercial. The private sector consulting firms and contractors execute both water and sanitation projects so the split between service sectors was not possible. The estimated total of HR of the nine international NGOs is 207 and that of the 51 Ghanaian NGO is 663. The total NGO HR of 870 may be more since this value represents only those NGOs who are active in the water and sanitation sector. The HR for water systems operation for the 397 small towns' water systems is 1985. There are more HRs in water than sanitation due to the complexity of water systems. In the same way there are more HRs for urban water and sanitation than rural due to the low technologies used in rural areas.

The female and male distribution shows that there are more males than females in water provision. The percentage of females out of the total HRs in the organisations ranged from 11% to 45%. For instance the number of females in GUWL is 16% of total skilled personnel. The qualifications of public sector organisations' employees range from Certificate, Diploma to Masters Degree. The HRs employed by the private and public sector have the entry qualifications assigned to the occupations. The assistant technical/artisans enter (middle level manpower) with certificate but the senior staff enter with diploma/HND or university degree. These requirements are outlined in the job specifications of the organisations. The job

specifications cover the education requirement, experience (minimum years of relevant working experience, years in management training), knowledge and skills, as well as leadership capabilities. The interviews show that people employed soon after formal education undergo management training or some form of on-the-job training. The promotion of the employees in public sector is based on the number of years of work experience after first appointment. The construction firms employ people who have work experience and the required qualification to fill positions. There is no well defined career progression in the construction sector.

The NGOs employees' qualifications range from Certificate, Diploma to Masters Degree. The NGOs employ people who have work experience and the required qualification to fill positions. The only positions that people are employed and trained in some NGOs are the Health/Hygiene promoter and Community Mobilization. Some NGOs employ secondary or high school graduates and train them to do the field work whereas other NGOs employ BA social science and social work graduates to do the field work. There is no well defined career progression in the NGO sector. The system manager and accountants of small towns' water supply piped systems enter with diploma qualifications.

Existing HR Capacity and Competence in Sanitation

There are 6 Metropolitan, 55 Municipal and 155 District Assemblies as of 2010. The Metropolitan and Municipal Assemblies have Waste Management Department (WMD) and environmental health department (EHD), both headed by officers with BSc degrees with workers under them. The MMDAs HR for sanitation and environmental health is 3122 excluding unskilled labour. The MMDAs HRs are involved in the O&M of sanitation and abatement of nuisance. The MMDAs employ people with the required environmental health qualification to fill positions. There are four categories of qualifications in the sanitation and environmental health sector. These are Environmental Health Assistant, Environmental Health Officer, Environmental Health Technology, and Public Health Engineer. Only Kumasi out of the 6 metropolitans has civil engineers working in sanitation. Most of the MMDAs do not have engineers trained to provide sanitation service delivery. This is one of the factors contributing to the low sanitation coverage. There is a huge capacity gap in sanitation engineering. Currently some of the young staff further their education in Health Sciences Education, development studies, water and sanitation etc. But there is no well defined career progression for further education with the new degrees, so they leave the sanitation sector or join private sector organisations. There is well defined career progression but does not offer opportunity for higher education.

Sector drivers, Incentive and Disincentives

The inadequate investment in infrastructure for water and sanitation to meet the growing demand has effects on attracting and retaining workers in the WASH sector. The demand for HR and to attract and keep qualified HR working in the public sector water and sanitation is also affected by embargo on employment by government. This is a policy to reduce the number of employees in the public sector to reduce government wage bill. There is also the issue of multiple sectors (ministry of health and ministry of local government) involved in sanitation. The budgetary allocations and transfers for training and investment seem to be a challenge in attracting workers especially sanitary and civil engineers. The politic of sanitation also does not provide the needed private sector investment in sanitation.

The main incentives to attract and keep qualified people working in the water and sanitation sector are mainly the salary, career advancement opportunities and opportunities for on-the-job training. The salary scales in the public sector are not different from one public sector organization to another but some differences exist in other benefits such as means of transport and accommodation.

The disincentives such as lack of career development, lack of recognition of further education, and low salary of public sector compel people to leave the public sector to join the private sector. The sanitation sector also lack career development, lack of recognition of further education. The other disincentives in the public sector are inadequate equipment/tools to perform critical tasks, unfavourable policies and implementation strategies, political interference and inadequate collaboration among stakeholders. For some NGOs, there is no good incentives since salaries are not regular because there are sometimes periods where there are no projects to execute. For the NGOs one leaves every year and is replaced.

The attrition rate is high in sanitation, but for those who remain, it is due to the end-of-service benefit for public sector workers. The lack of future employment prospects, career opportunities, and competing opportunities are some of the disincentives for students to consider studying for and working in water and sanitation. The attrition rate in sanitation is high due to lack of career progression for those who pursue further studies after the basic entry qualification. There is lack of recognition of further education qualifications which are filled with the MMDAs. This is due to the fact that career path and development have not been established in the organisation job specification/structure. This has resulted in losing workers of the MMDAs with BSc to the private sector. Good retirement makes people stay in the public sector.

HR Supply

The HR supply from the training institutions show that for water and sanitation Engineering Programmes, the annual supply of graduates of civil engineers ranged from 100 to 130 and non-graduate civil technicians are ranged from 340 to 480. The male to female proportions are 85% and 15% respectively. The annual supply of graduate of other engineers (degree and non-graduate) is about 3926. The male to female proportions for engineering courses are 85% and 15% respectively and that of the sciences (chemistry, bio-chemistry) are 60% and 40% respectively. The annual supply of graduates holding social science, sociology and planning degrees from two universities is about 912. The annual supply of graduates holding business administration, commerce, and management studies degrees from two universities is about 1284. The graduates from social development, and management and finance programmes are not in short supply since there are many universities both private and public training manpower for the nation. The male to female proportions of social development, management and finance programmes are 70% and 30% respectively.

There is a number of project capacity building initiatives since 1993. Some of these projects are Training of community mobilisation team by KFW project, DANIDA projects in three regions, DANIDA Training of small towns water operating staff by KNUST and University of Cape Coast, World Bank urban environmental sanitation project and the Northern region rural water project.

HR Shortage and Gaps

The analysis to determine the HR demand could not be done as required by the TOR. However, there are indications that shortages exist in engineering fields especially sanitary

engineers since there is no specific training in environmental sanitation engineering. The civil engineers who are trained to take up jobs as sanitary engineers find the MMDAs unattractive. There are shortages of mechanical and electrical engineers in urban water supply and replacing them is difficult due to the unattractive salary and conditions of service. The MMDAs HRs involved in environmental health perceived their training as more of abatement of nuisance and so the service delivery and designs of sanitation systems are not the focus of the training. For the private sector and the NGO there are no indications of shortage of HR. They have attractive salaries and so able to attract qualified personals, but the public sector has job security and benefits, employees' satisfaction, study leave with pay for further training than the private sector and NGOs.

Recommendations

The following recommendations for improving the immediate short-term quantitative output of human resources (both at the public, private and non-governmental levels) are drawn from the study:

- Technical short courses and tailor made short courses for staff with environmental health background. Technical short courses for staff involved in technical WASH service delivery could be developed and run.
- Institutionalised capacity building will be required to strengthen the service delivery activities and performance analysis.
- Good or attractive salaries need to be paid to certain positions especially the engineers in water and sanitation,
- Good working conditions and incentives. These were key issues identified.

The following recommendations for improving the quantitative output of human resources over the longer term (both at the public, private and non-governmental levels) are drawn from the study:

- To address the sanitation capacity challenge there will be the need to develop curriculum and run training in BSc Environmental Sanitation and BSc Sanitary engineering. It is expected the new skills will help to provide WASH engineering services at the MMDAS.
- Training school dedicated for training of HR in sanitary engineering and environmental sanitation,
- Re-structure sanitation HR within the MMDAs to recognize degree holders. This could be done by providing career development plan with well defined degree programme to be pursued in order to progress from non-degree level to degree (professional) level.

To ensure improving qualitative output of the country's human resource and ensuring training institutions are more responsive to the needs of the labour market, the following recommendations are made:

- The training needs assessment of sanitation HR will be needed to identify the short course requirement to upgrade their skills.
- Training institutions need to provide opportunities for career development for young civil engineers to motivate them to acquire more knowledge.
- Sponsor employees to do short courses and tailor made short courses and should be a requirement for promotion.